



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,738	03/04/2005	Jared S Timko	22188/06985	7877
24024 7590 11/27/2009 CALFEE HALTER & GRISWOLD, LLP 800 SUPERIOR AVENUE SUITE 1400 CLEVELAND, OH 44114				
EXAMINER BASTIANELLI, JOHN				
ART UNIT 3753		PAPER NUMBER		
NOTIFICATION DATE 11/27/2009		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipdocket@calfee.com

dcunin@calfee.com

Office Action Summary

Application No.

10/526,738

Applicant(s)

TIMKO ET AL.

Examiner

John Bastianelli

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-42, 44, 46-48, 50, 52, 59-68, 72-79 and 82-91 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-42, 44, 46-48, 50, 52, 59-68, 72-79 and 82-91 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-840)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. The claim after 89 is listed as claim 99 but is a typographical error and it supposed to be claim 90 and the examiner has treated it as such.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 38-42, 44, 46-47, 50, 79, and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moen US 3,192,943.

Moen discloses a valve comprising a valve body having a valve cavity therein; a valve element for controlling flow through the valve based on a rotational position of the valve element about an axis of rotation, and a single piece packing 21 that surrounds said valve element and seals directly against said valve element within said valve cavity; wherein said valve element comprises a spherical ball 33 and adjacent upper and lower cylindrical trunnions 32, 34 extending from the ball along said axis of rotation; wherein the ball has a maximum outer diameter D1 and at least one of the trunnions has an outer diameter D3. Moen is silent as to the ratio D3/D1 of .7-.9. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the ratio of .7-.9 as this allows easy installation of the packing onto the ball valve

since the ball valve is only slightly larger than the trunnion and it would be "obvious to try" as applicant admits that in prior art ball valves that trunnion to ball diameter ratio ($D3/D1$) is typically 0.3-0.65 (p.8) and applicant's is claiming a ratio of 0.7-0.9.

Therefore the applicant is admitting that the applicant is increasing a prior art ball valve ratio from .65 to .7 which is only a 7.7% enlargement from the closest ratios. Moen lacks a ratio of $D3/D1$ of .8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the ratio of .8 as this allows easy installation of the packing onto the ball valve since the ball valve is only slightly larger than the trunnion and it would be "obvious to try" as applicant admits that in prior art ball valves that trunnion to ball diameter ratio ($D3/D1$) is typically 0.3-0.65 (p.8) and applicant's is claiming a ratio of 0.8. Therefore the applicant is admitting that the applicant is increasing a prior art ball valve ratio from .65 to .8 which is only a 23% enlargement from the closest ratios. The packing is seen as dimensioned "to be installed on said valve element with a room temperature range" of "about 65-100 degrees F" and this is product by process. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product in the prior art, the claim is unpatentable even though the prior product was made by a different process (see MPEP 2113). Moen lacks a ratio $H/D4$ of .75-.85. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the packing of Moen to remove the shank 27 to make the packing cylindrical and also wider than taller ($H/D4$ of .75-.85) in order to make the packing easier to install onto the valve as there would be less

material at the top to make installation much easier and it would be "obvious to try" as applicant admits that in prior art ball valves that packing height to packing outside diameter ratio (H/D_4) is typically 0.9-1.1 (p.11) and applicant's is 0.75-0.85. Therefore the applicant is admitting that the applicant is decreasing a prior art ball valve ratio from .9 to .85 which is only a 5.6% decrease. Moen lacks a ratio H/D_4 of .8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the packing of Moen to remove the shank 27 to make the packing cylindrical and also wider than taller (H/D_4 of .8) in order to make the packing easier to install onto the valve as there would be less material at the top to make installation much easier and it would be "obvious to try" as applicant admits that in prior art ball valves that packing height to packing outside diameter ratio (H/D_4) is typically 0.9-1.1 (p.11) and applicant's is 0.8. Therefore the applicant is admitting that the applicant is decreasing a prior art ball valve ratio from .9 to .8 which is only a 11.1% decrease. The packing comprises a polymer (synthetic rubber is seen as a polymer). The packing is an interference fit with the valve element. The term "when said packing is installed thereon prior to loading said packing within said valve cavity" is product by process. The packing is seen as dimensioned "to be installed on said valve element at a temperature below which said packing deforms" of "about room temperature" and this is product by process. The packing is seen to be "snap fit" on to the valve element (ball would inherently "snap" as ball is greater in diameter than the opening to which it is going into and this is also product by process. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as

or obvious from a product in the prior art, the claim is unpatentable even though the prior product was made by a different process (see MPEP 2113).

4. Claims 47-48, 52, 61-62, 68, 83-85, 89, 90 (written mistakenly as 99), and 91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moen US 3,192,943 in view of Spock, Jr. et al. US 5,326,074.

Moen lacks the packing made of PTFE. Spock discloses a one piece packing 27 made of polytetrafluoroethylene (PTFE) (col. 5, lines 12-16). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the packing of Moen out of PTFE as disclosed by Spock in order to provide better sealing of the packing to the valve. The packing is seen to be "snap fit" on to the valve element (packing would inherently "snap" as ball is greater in diameter than the opening in the packing to which it is going into and this is also product by process. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product in the prior art, the claim is unpatentable even though the prior product was made by a different process (see MPEP 2113).

5. Claims 59, 63-64, 66-67, 76-78, and 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moen US 3,192,943 in view of Reed, Jr. US 3,066,909.

Moen discloses a valve element for controlling flow through the valve based on a rotational position of the valve element about an axis, and a single piece packing that surrounds said valve element; and seals said valve element within said valve cavity; wherein said valve element comprises a ball and adjacent upper and lower cylindrical

trunnions extending from the ball; a lower end of said single piece packing seals directly against said lower cylindrical trunnion; said lower cylindrical trunnion extending axially along said rotational axis past a lowermost end of said packing; said valve cavity including. Moen lacks a reduced diameter counterbore being dimensioned to closely receive said lower cylindrical trunnion of said valve element and the bottom of the lower trunnion spaced apart from the reduced counterbore to shift in two opposite directions along the axis of rotation. Reed discloses a reduced diameter counterbore being dimensioned to closely receive said lower cylindrical trunnion of said valve element and the bottom of the lower trunnion (bottom of 7) spaced apart from the reduced counterbore 13. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the lower trunnion of Scaramucci have a reduced counterbore that is spaced from the bottom end of the trunnion as disclosed by Reed in order to allow play in two opposite directions along the axis of rotation in order to keep the valve from breaking if a large force happened to be provided in the upward or downward direction. Moen lacks a stem having a smaller diameter than the upper trunnion. Reed discloses a stem 9 having a smaller diameter than the upper trunnion 8 or 7. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the stem of Moen have a smaller diameter than the upper trunnion as disclosed by Reed in order to save material in making the stem. Moen discloses the cylindrical outer surface of the packing is cylindrical about the axis of rotation of the valve element.

6. Claims 60, 65-67, 72, 75 and 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moen US 3,192,943 in view of Kemp US 4,911,408.

Moen lacks the packing being live loaded in a direction of axis of rotation. Kemp discloses live loading a packing in a direction of axis of rotation. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the packing of Scaramucci live loaded as disclosed by Kemp in order to keep everything tight and movable in order to allow play in two opposite directions along the axis of rotation in order to keep the valve from breaking if a large force happened to be provided in the upward or downward direction. Moen lacks a stem having a smaller diameter than the upper trunnion. Kemp discloses a stem 48 having a smaller diameter than the upper trunnion 86. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the stem of Moen have a smaller diameter than the upper trunnion as disclosed by Kemp in order to save material in making the stem. Moen discloses the cylindrical outer surface of the packing is cylindrical about the axis of rotation of the valve element.

7. Claims 68, 73-74, 87-88 and 93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moen US 3,192,943 in view of Reed, Jr. US 3,066,909 in view of Spock, Jr. et al. US 5,326,074.

Moen lacks the packing made of PTFE. Spock discloses a one piece packing 27 made of polytetrafluoroethylene (PTFE) (col. 5, lines 12-16). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the

packing of Moen out of PTFE as disclosed by Spock in order to provide better sealing of the packing to the valve.

8. Claims 68, 73-74, 87-88, and 93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moen US 3,192,943 in view of Kemp US 4,911,408 in view of Spock, Jr. et al. US 5,326,074.

Moen lacks the packing made of PTFE. Spock discloses a one piece packing 27 made of polytetrafluoroethylene (PTFE) (col. 5, lines 12-16). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the packing of Moen out of PTFE as disclosed by Spock in order to provide better sealing of the packing to the valve.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Bastianelli whose telephone number is (571) 272-4921. The examiner can normally be reached on M-Th (8-6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571) 272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Bastianelli
Primary Examiner
Art Unit 3753

/John Bastianelli/
Primary Examiner, Art Unit 3753